

ICE Breaker

MAGAZINE

Sept - Dec 2010 Edition 52

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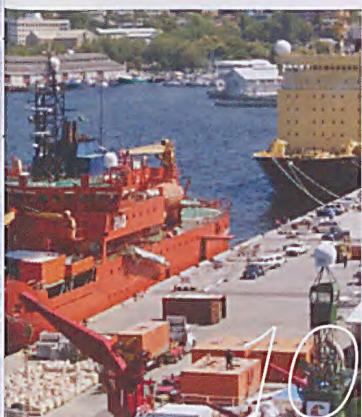
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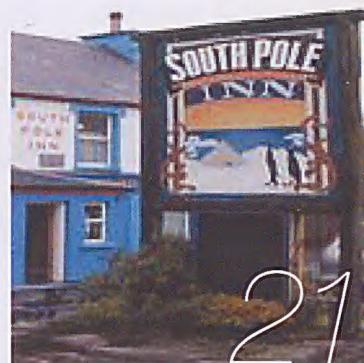
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Our cover picture

Courtesy Frederique Olivier



Editorial

Welcome to the Spring edition of *Ice Breaker*. As I mentioned in my last editorial, I visited New York to see one of my Igloo Satellite Cabins in Scott and Amundsen's Race to the End of the Earth' exhibition. I had a wonderful time, meeting museum staff and Antarctic expeditioners, and came back full of ideas for midwinter activities in Hobart.

In this edition, we introduce Peta Sugden, the new Director of Antarctic Tasmania, Science and Research; include extracts from Sir Guy Green's speech on Hobart's Antarctic potential and have a summary of the Antarctic Visions conference.

Next year's Mawson Centenary events need to act as motivation to the Antarctic community to increase

Hobart's profile as Australia's Antarctic Capital, so if you have any ideas for events to highlight Tasmania's status, please contact *Ice Breaker*, Antarctic Tasmania and/or the Australian Antarctic Division via its new website below. If you can inspire any sponsors to help fund these events, that's even better! After experiencing how Americans fund and promote Antarctic activities as a vital part of students' education, there is no reason for Hobart not to be the centre for this in Australia.

Anthea Wallhead

Editor, *Ice Breaker*

100 Years of Australian Antarctic Expeditions

One hundred years ago, Douglas Mawson began planning a new scientific expedition to the Antarctic coast south of Australia. On 2 December 1911, Mawson's plans came to fruition and the Australasian Antarctic Expedition left Hobart bound for Macquarie Island and East Antarctica.

From 2011, Australia will celebrate the centenary of this expedition, marking 100 years of Australian Antarctic Expeditions.

The Australian Antarctic Division has launched a website where centenary event organisers from around Australia can list and advertise their events and activities.

Visit centenary.antarctica.gov.au for event information.



The site also provides information for event organisers on how to list your event on the site, and how to obtain the centenary logo for use.



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David Bartlett

We can expect to attract more world-class researchers and scientists...

Tasmania has always had a special relationship with Antarctica and Hobart has long been a gateway to Antarctic exploration. The Tasmanian Government has recently announced three major initiatives which will have significant positive impacts on the Antarctic sector for our state and especially our capital city.

On the 20th of August, I launched the Sullivans Cove Master Plan. This Plan sets out our aspirations for how the Cove can develop over the next decade and beyond. In particular, it highlights Sullivans Cove's status as the very heart of our connections with Antarctica, through the theme of "The Polar Gateway".

That means stimulating new civic and commercial opportunities, and undertaking important infrastructure improvements. We want to ensure that the waterfront remains a vibrant focal point for Hobart.

At the same time I announced a package of property transactions with the University that will further the Government's objectives in research, education and health and deliver significant benefits to the Tasmanian community. A component of these property transactions is an offer to transfer Princes Wharf No.2 to the University of Tasmania as the site for the new \$45 million Institute of Marine and Antarctic Studies (IMAS) facility.

The new site for IMAS will strengthen Tasmania's capacity and reputation as a world-class centre for research and science, particularly in areas such as Antarctic, climate change and marine research and science. This move will open up further development of Tasmania's research and science capabilities.

We can expect to attract more world-class researchers and scientists who have such a positive impact on our community to Tasmania.

Tasmania's Innovation Strategy was launched on 25th of August. The Strategy has an initial focus on five key areas: food, agriculture and aquaculture; the digital economy; renewable energy; a vibrant, creative and innovative Tasmania, and tourism.

It is under the theme of "a vibrant, creative and innovative Tasmania" that we will grow Hobart as a key gateway to Antarctica and the Southern Ocean. Tasmanians can be universally proud of our special status as Australia's Antarctic capital – the city intimately linked to all the history, research and adventure of the frozen continent. The Redevelopment of the Hobart wharf infrastructure and Airport Runway and the Antarctic Centennial Year have been identified as integral parts of the plan.

The Tasmanian Government has also recently lodged a submission with Infrastructure Australia for a project entitled "Hobart – A World Class Liveable Waterfront City".

This submission recognises the importance of Antarctic and Southern Ocean research and development and the port area to Hobart's economy and sense of place. I believe we have made a compelling case that the Hobart port operations are singularly important in maintaining the Antarctic and Southern Ocean shipping operations.

The submission focussed on the working port area with a view to upgrading Hobart's capabilities for major ship handling.

This may include, but not be limited to, ship repair and servicing, attracting more east Antarctic nations to use Hobart as a home or servicing port, and a capacity to provide a servicing base for naval vessels.

We will continue to do all we can to work with the Australian Government, TasPorts and key stakeholders to make sure that we upgrade our working port area.

The Antarctic Centennial Year, which starts in 2011, is an important one for Tasmania and I believe is a unique opportunity for Tasmania to leverage its profile as an Antarctic gateway. The Centennial Year contains several high-profile events to be held in Hobart, which will include the 100th anniversary of Sir Douglas Mawson's and Roald Amundsen's achievements in polar exploration.

Hobart will also host the 2011 Conference of the International Association of Antarctica Tour Operators (IAATO) in May, followed by the third International sub-Antarctic Forum in August and the Antarctic Treaty Consultative Meeting in June 2012. These events show how Hobart can be a pivotal gateway to the Antarctic. I encourage all Tasmanians to support these events.

We have every reason to proud of our status as an Antarctic gateway and these are excellent opportunities to celebrate our connections with such a dramatic, beautiful and important continent.

David Bartlett

Premier of Tasmania
Minister for Innovation, Science and Technology



Elise Archer

...a modern dynamic waterfront, a vibrant social, cultural, and creative hub...

The 'working port'

The importance of maintaining Hobart as a working port and as the Antarctic gateway is incredibly important, both to Hobart and to Tasmania as a whole. Although many definitions of a 'working port' exist and are regularly quoted, I believe we must, at the very least, protect the minimum boundary for a working port and ensure the wharf does not continue to fall into disrepair.

Hobart is one of the deepest ports in the Southern Hemisphere and it saddens me, and no doubt many others, to see the port in its current dilapidated and neglected condition, including many areas of decay and rust. It is also frustrating to only hear the working port defined to include the operation of cruise ships and Antarctic vessels, albeit both important services which should be maintained.

I believe that maintaining Hobart as a working port and preserving the reputation the city of Hobart has on a world scale is about striking the right balance between numerous industries, businesses and social activity.

Hobart is currently home to a significant percentage of Australia's Antarctic scientists, as well as national and international organisations, but it must not be forgotten that a true working port is vital to Hobart's attraction as a tourist destination and a gateway to our state's rich heritage.

Tourists and locals expect to see fishing vessels alongside the businesses that sell their produce. They expect to walk into restaurants and cafes that sell our island produce. And yes, they expect pedestrian access to the wharf apron - but not at the expense of a working port with reasonable and necessary vehicular access in the absence of alternative passenger transport options.

Urban design within the port is well intended but it must be developed harmoniously with the many and varied wharf activities, rather than in competition with it. It must also maintain connectivity with the CBD. It is this 'balance' which must be protected to maintain the unique character and charm of Hobart's wharf.

The Sullivan's Cove Master Plan vision statement promises to maintain "a modern dynamic waterfront, a vibrant social, cultural, and creative hub, a working port and a thriving educational and research centre, an area with active public spaces and a diverse range of commercial activities, and above all, a place for people."

I only hope it does strike the right balance and that future development in Sullivan's Cove is sensitive to all surrounding port activities. As Shadow Minister for Planning, I also have a concern about the veracity of the Master Plan because this document will not be legally enforceable and need not be observed or applied by the relevant planning authority.

It is also concerning that the draft Master Plan states future development will be guided by focusing on three ideas, namely:

1. Knowledge and Living City;
2. Polar and Marine Gateway;
3. Integrating Urban Space.

It would appear from the above areas that a working port may not be so widely defined in the Master Plan as encompassing traditional wharf activities. The more recently developed polar and marine gateway activities are, of course, critical to Hobart and I only hope that these activities develop in conjunction with, not at the expense of, other wharf activities.

The State Coastal Policy

A State Coastal Policy is yet another issue that the State Government has put in the 'too hard basket' for far too long. The existing policy was found to be unlawful in the Supreme Court of Tasmania in 2002 on the basis there was no clear definition of a 'coastal zone'.

In response, the State Government enacted the State Coastal Policy Validation Act in 2003 to reinstate the Policy, and then it initiated a lengthy review of the Policy and it has remained in draft form ever since.

The current draft of State Coastal Policy makes reference to the fact that the policy should work to facilitate the conservation of natural, social and economic assets, values and processes of the coastal area; the sustainable use or development of coastal areas, and the satisfaction of social needs and development of culture.

The lack of clarity around coastal policy in Tasmania, therefore, still remains today. I believe the State's Coastal Policy should be informed by independent, scrutinised, scientific and appropriate guidelines for local government to base their planning processes around, and take shared responsibility in planning for future generations.

The current situation of uncertainty surrounding the future of our working port and the delays surrounding the State Coastal Policy Review process are undesirable and inaction should not be allowed to continue.

Elise Archer MP

Shadow Minister for Planning
Liberal Member for Denison



Antarctic Tasmania

Another key priority is to develop an Antarctic Plan...

I am delighted to have been recently appointed as the Director, Antarctic Tasmania, Science and Research with the Department of Economic Development, Tourism and the Arts (DEDTA). The Antarctic sector is an exciting area to work in which to work and I have been struck by the passion of people involved in the sector.

Before I launch into Antarctic Tasmania's impressive agenda I will give you a little bit of my background. I have recently rejoined the department after a 2.5 year 'break'. During this time I held roles as the General Manager of TPI Enterprises Ltd, an innovative Tasmanian poppy company, as well as spending a few months with the University of Tasmania in its Research Commercialisation Unit. In my previous seven years with the department I headed both the Food and Agribusiness and the Small Business units as well as working as a Senior Advisor to the previous Premier. I have also held senior roles within a large multinational company in international quality standard auditing, auditing training and supply chain management.

I am lucky to have Chrissie Trousselot working with me and heading the Antarctic Tasmania team. Chrissie, along with other team members have recently:

- Produced a new Antarctic capability statement to promote Tasmania as an Antarctic gateway and as a world-leading centre of Antarctic and Southern Ocean education and research.
- Successfully bid on behalf of the Tasmanian Government to host the Antarctic Treaty Consultative Meeting (ATCM) in 2012.
- Successfully secured the 2011 International Association of Antarctica Tour Operators (IAATO) conference for Hobart ahead of Providence, Rhode Island – USA, Queenstown, New Zealand, Hamilton Island and Hong Kong. The IAATO meeting will be held at the historic Commission for the Conservation of Antarctic Marine Living Resources building in the second week of May 2011, with around 100 delegates expected to attend.
- Attended the COMNAP Symposium in Buenos Aires in August with the Director, Australian Antarctic Division (AAD), Lyn Maddock, who led the Australian delegation along with Tasmanian Polar Network (TPN) Chair, John Brennan, and Deputy Chair, Peter Fewkes. Following the symposium TPN hosted a cocktail party for targeted COMNAP members to promote Tasmania's logistics and support capability in East Antarctica.

In addition, planning for the Antarctic Centennial Year is continuing and an advisory group has been established to assist with the development and implementation of an events calendar to celebrate 100 years of Australian Antarctic Expeditions and Hobart's contemporary role as a hub of expertise in Antarctic science and logistics.

There are a number of other initiatives that we will be working on in the coming months, including the Sub-Antarctic Forum and the Tasmania – Antarctic Gateway working group. Another key priority is to develop an Antarctic Plan which will capture the opportunities that exist for this sector, identify impediments in realising these opportunities and importantly outlines an action plan to achieve the vision.

No doubt many Ice Breaker readers will be involved in some way with our upcoming activities. In particular I look forward to your contribution to the development of a strong vision for the Antarctic sector in Tasmania.

Peta Sugden

Director, Antarctic Tasmania, Science and Research



Elephant Seal

Length: 3-6.5m (male larger)
Weight: 680-2400 kg
Lifespan: 14 years

Seals continue to spend time out to sea, diving up to 400 metres to feed on fish and squid. Elephant seals are the deepest diving of all seal species and have been recorded at 1500 metres.



Leopard Seal

Length: 2.7-3.7m (female larger)
Weight: 275-450 kg
Lifespan: about 25 years

Births occur in November on loose pack ice or small islands. Females suckle their single pups for about a month before abandoning them. After mating again, adult seals return to the sea.



Weddell Seal

Length: 2.5-3.2m (female larger)
Weight: 400-450 kg
Lifespan: up to 18 years

Pups are born on sea ice at breeding sites in October and November. With woolly coats only partly moulted, pups enter the water when 8-10 days old and are weaned in 6-8 weeks.



Crabeater Seal

Length: 2.4m-2.6m (female larger)
Weight: 200-300 kg
Lifespan: over 30 years

Seal pups are born in September or early October. They are about 1.5m long and suckle for about 4 weeks. When ready to mate again in late Spring, the female bites the male on the head.

Spring



John Brennan

...magnificent career opportunities....

As I write this I am preparing to pack my bags and get ready to head over to Buenos Aires, Argentina, for the COMNAP conference. Peter Fewkes, TPN Deputy Chairman, and Antarctic Tasmania's Christine Trousselot will be accompanying me.

Our mission is to showcase to the representative nations the benefits of doing business and conducting world class Sub-Antarctic, Antarctic and Southern Ocean science in Tasmania. The TPN has attended previous COMNAP conferences and normally trade exhibitions are part of the program. However, like the previous conference in St Petersburg, Russia, this gathering will not host a trade exhibition. Nonetheless, we have been able to negotiate with the organisers to gain access to attendees and host a focused cocktail information evening.

This is a great opportunity for Tasmania, being the only gateway represented by industry and government together.

The future growth of the Sub-Antarctic, Antarctic and Southern

Ocean sector is not only an obvious opportunity for Tasmania but it is an intelligent direction. The opportunities for business and science/education within the sector are indeed boundless and the industry players and scientists are keen to ensure that the sector flourishes and grows to its full potential.

With the federal election upon us there is much talk about funding for this and funding for that. Of course funding is limited and it is strategically allocated during a campaign to capture the support of voters. I am hopeful that our politicians can recall; how important the sector is to the Tasmanian economy (\$150+ million per annum and growing); the cultural benefits the community gains from the links with the sector; and the magnificent career opportunities that exist for our up and coming generations.

There will be interest in the Antarctic sector and the Southern Ocean for many many years to come. We are in the right place at the right time! If we are to capture in full the intelligent benefits for the state and thus provide opportunities for future generations we

need to make sure we are investing in the correct areas.

While the recent bid by the state government to Infrastructure Australia is highly commendable and the Tasmanian Polar Network (TPN) has been a key stakeholder involved with the consultation phase, there are no guarantees of funding at all. In fact there is no apparent hypothecated funds for infrastructure repairs, maintenance and upgrading to support the sectors most critical asset - the wharf.

I do not mean to be alarmist at all and as I have already expressed the TPN recognises the cooperation and communication to date between the government and other stakeholders including Tasports, but until we have seen some money clearly allocated on the balance sheet, by whatever means, the TPN will keep this issue at the forefront of its agenda.

John Brennan

Chairman, TPN

Polar Competitor No. 1

In June, several TPN members met with Pedro Courard, a consultant employed by CORFO, a Chilean government agency with a role similar to Tasmania's Department of Economic Development. His main objectives were to find out more about how the TPN was formed, to meet with potential companies interested in expanding operations in Punta Arenas and to find out more about regulations and support for Antarctic operations and logistics.

By 2014, the Chilean Antarctic Institute will have a new, energy sustainable complex that will

include the Institute's offices, research laboratories and a museum dedicated to Chile's strong presence in Antarctica. Last month, Magallanes Region Mayor, Liliana Kusanovic, stated that the International Antarctic Centre would be 'most important for Punta Arenas: it will become an icon of the city, identify it as the gateway to Antarctica and as an Antarctic city. Only five cities in the world can boast the condition of Antarctic city'.

Polar Competitor No. 2

China and Argentina will be cooperating more actively on Antarctic scientific expeditions. As a country closest to the South Pole in Latin

America, Argentina provides ideal conditions for Chinese expedition teams to gather and rest before entering the pole," said Wei Wenliang, head of the Polar Expedition Office of the administration.

Wei said the third generation of China's polar expedition ship Xue Long (Snow Dragon) has entered the Buenos Aires harbour and Ushuaia harbour in southern Argentina for supplies several times. China's new polar expedition ship will dock in Argentina on its way to the South Pole, as well.

The Antarctic Centennial Year 2011-2012

In the world of Antarctic history, science and research, we often refer to an 'Antarctic year' which runs from June to June – that is, from midwinter to midwinter. An Antarctic season generally opens with the first stirring of spring, leads into the busy summer and comes to an end when the hard-frozen night of polar winter descends again. In the coming Antarctic year, here in Tasmania, a number of important events will take place:

- In May, 2011, the International Association of Antarctica Tour Operators (IAATO) will meet in Hobart for its annual conference. The organisation, founded in 1991, exists to advocate, promote and practice safe and environmentally responsible private sector travel to the Antarctic.
- In December 2011, Tasmania will celebrate the 100th anniversary of Douglas Mawson's Australasian Antarctic Expedition, which departed the Hobart

docks in 1911 to sail to Cape Denison in Commonwealth Bay, establishing Australia's first foothold on the Antarctic continent.

- Also in December 2011, the National Archives of Australia (NAA), in cooperation with the Australian Antarctic Division, will launch 'Australians in Antarctica', an important new exhibition at the Tasmanian Museum and Art Gallery. After its debut in Hobart, the exhibition will tour Australia for four years.
- In March of 2012, Hobart will honour the 100th anniversary of Roald Amundsen's historic telegram from the Hobart Post Office to the King of Norway, announcing that he had reached the South Pole, the first human being to do so. The well-known ABC broadcaster Tim Bowden will visit Hobart to mark the event – his grandfather was the telegraph clerk who received the message and transmitted it.
- In June 2012, more than 300 representatives of 47 countries will gather in Hobart for the prestigious 35th meeting of the Antarctic Treaty Consultative Meeting, the annual forum for signatories of the international treaty which preserves Antarctica for 'peace and science'.

Title : Mawson Antarctic Expedition: Steam Yacht Aurora photographed on the edge of the ice shelf off Queen Mary Land - group of penguins in the foreground [lantern slide attributed to Frank Hurley]

Date : 1911

Image no. : M584, 2

Series accession number : M584XR1

Location : Canberra, NAA

Image courtesy : Linda Jacobs, NAA Hobart

• In response to this extraordinary year, and to acknowledge Hobart's unique status as Australia's Antarctic gateway, public and private sector organisations have come together to plan the Antarctic Centennial Year (ACY). Based on these key dates, an exciting calendar of Antarctic themed exhibitions, symposia, art works and social events is under development. An advisory group comprising representatives of the Australian Antarctic Division, the National Archives of Australia, Antarctic Tasmania, Events Tasmania, the TMAG, the TPN, Hobart City Council, the Mawson's Huts Foundation and others has been formed to assist with planning and communications. The group is chaired by Tasmania's Honorary Antarctic Ambassador, Sir Guy Green, AC, KBE, CVO.

The ACY Advisory Group is interested to hear from organisers of Tasmanian events which might be included in the Antarctic Centennial calendar. These may be events already planned or projects under development that would add value to the celebration and promotion of our Antarctic culture and history in Tasmania.

Contact Paul Cullen:

Cultural Events Manager
Antarctic Tasmania, Science and Research
GPO Box 646, Hobart, TAS 7001
paul.cullen@development.tas.gov.au
(+61) 3 6233 3170

Title : Mawson Antarctic Expedition: Charles Francis Laseron standing, with hands in pockets, outside doorway of Main Base hut. [Black and white glass plate]

Date : 1911

Image no. : M584, 25

Series accession number : M584/6

Location : Canberra, NAA

Image courtesy : Linda Jacobs, NAA Hobart

Hobart's Antarctic Future

Extracts from a speech by Sir Guy Green, Honorary Antarctic Ambassador, at the TPN Dinner, June 26, 2010

An important part of the strategic development of Tasmania requires us to fully appreciate Tasmania's assets both as a place and as a society including especially those assets which give us a competitive advantage or reinforce our distinctive identity or brand. Our involvement in the Antarctic field is quintessentially such an asset. I would like to raise three possibilities:

1. Museum

First of all Hobart should develop a major Antarctic museum, interactive interpretation and cultural centre.

Of course we already have the Tasmanian Museum and Art Gallery's collections and its Islands to Ice exhibition – a permanent gallery devoted to Tasmania, Antarctica and the Sub-Antarctic. As well as the TMAG collections, Tasmania has a treasury of other Antarctic related objects in the AAD collections, the Maritime Museum, the Royal Society library and the Royal Tasmanian Botanical Gardens cold house.

When you consider those assets together with the several dozen destinations on the Polar Pathways tour around Hobart, it is not all that big a step to envisage the establishment in Hobart of the greatest Antarctic and Sub-Antarctic museum and interactive interpretation centre in the world.

2. Tasmanian International Antarctic centre

Another project to which we could realistically aspire is the establishment of a Tasmanian International Antarctic centre. It would comprise several divisions. These could include consultancies and advice on maritime, national and international law, logistics, feasibility studies, environmental and other compliance issues, interpretation and translation services, political intelligence and the provision of high volume communication and data facilities.

i. One division would be devoted to the development and marketing of Antarctic technology.

We are already well established in this field with Tasmanian companies developing and providing specialised engineering and technological solutions in all sorts of fields. Promoting Tasmanian Antarctic technology and engineering could take the form of an Antarctic techno park or, more ambitiously, an institute which would engage in research and development and the marketing of Tasmanian Antarctic technology.

ii. Another division of a Tasmanian Antarctic centre could take the form of something like a business hub or centre focussed on Antarctic related enterprises. These could include consultancies and advice on maritime, national and international law, logistics, feasibility studies, environmental and other compliance issues, interpretation and translation services, political intelligence and the provision of high volume communication and data facilities.

iii. A third division of a Tasmanian Antarctic centre could focus on providing administrative and physical facilities for the headquarters or secretariats of the large number of Antarctic related international committees and organisations which have been set up around the world. Tasmania has already demonstrated its suitability and capacity to assume that role...and I see no reason why Tasmania should not assume a role in relation to Antarctic organisations comparable to that which say Geneva has in relation to international organisations generally.

3. Sub-Antarctic role

The third domain in which Tasmania has an opportunity to expand its role in the future is in relation to the Sub-Antarctic. Sub-Antarctic islands and the surrounding seas have qualities which fully justify identifying the region as a distinct domain as significant as any of the other great geographic zones of the world.



Hobart Port. Photo courtesy Antarctic Tasmania.

The ocean in the Sub-Antarctic zone is remarkable: it is the only ocean to circulate around the entire globe and is an ocean whose processes and those of the atmosphere above it have the most profound world wide environmental impact of all the oceans of the world.

Some of the steps we could take to secure our standing in this region include substantially enlarging the Royal Tasmanian Botanical Gardens Sub-Antarctic cold house, ensuring that the Sub-Antarctic is strongly represented in the Antarctic Museum and Interpretation centre I mentioned earlier and making Macquarie island and other Sub-Antarctic islands available as field campuses for the International Antarctic Institute.

Another significant initiative we could take would be the formation in Hobart of an international association of authorities and organisations concerned with the management, study and use of Sub-Antarctic islands. No such organisation exists at present but there is a need for one and our experience of the collegiality and creative interactions which marked the Sub-Antarctic forums suggest that it would be successful.

Reasons for promoting Tasmania's involvement

Let me conclude by listing the three main reasons why I think Tasmania should aim to increase its Antarctic and Sub-Antarctic assets and involvement.

First, it is of significant economic value. At present our Antarctic involvement can be seen as an important mid-sized Tasmanian industry but it has the potential to grow into one of our major industries.

Secondly, and more strategically, our Antarctic and Sub-Antarctic involvement lifts Tasmania's international profile and enriches Tasmania's brand as an interesting, enterprising, intellectually strong place in which people should invest, do research, be educated or take up residence.

Finally, Antarctica and the Sub-Antarctic have been imbedded in Tasmania's history and cultural and intellectual heritage for 185 years and are an integral part of Tasmania's identity. I really don't think we have any choice but to regard it as our destiny to ensure that our involvement continues to grow and flourish for another 185 years.'

Sir Guy Green AC KBE CVO

Midwinter events

This year the Tasmanian Polar Network held a Midwinter Dinner at Wrest Point June 26. Over 130 people associated with Antarctic business activities attended. During the evening Tasmania's Honorary Antarctic Ambassador, Sir Guy Green, gave a speech re Hobart's potential development as a world leader in polar facilities.

The wife of Tasmania's Governor, Mrs Frances Underwood, Chair of the Tasmanian Antarctic Gateway (TAG) Working Group, also spoke of further developing Hobart's capabilities. Guests also watched a video from Casey Station which described midwinter activities.

*Sub-Antarctic Plant House; RTBG.
Photo courtesy Mark Fountain.*

TMAG Ice Box

A new story from old objects.

If a picture says a thousand words, imagine what a real object might do! This is the idea at the core of a new approach for the Ice Box educational loan resource now available to all Tasmanian schools and community groups. From modern Antarctic expeditioner clothing, to Inuit-made reindeer and arctic fox skin clothing, students now have the opportunity to carefully handle actual polar objects when learning about Antarctica. No longer is the remoteness of the region a barrier to learning. Through close observation and experience of the real thing, greater understanding can be gained of the role of the Antarctic in our society's present and future development.

Some of the objects might be thought more prosaic than others, such as 1950's sledging biscuits, or carabiners and ice screws. Others have a more immediate appeal, such as sperm whale teeth and emperor penguin chicks. Others still, have less obvious qualities in their uniqueness; a polar medal and a Bainmedart coal sample from the Prince Charles Mountains for instance. But by experiencing any of these objects and understanding their contexts, especially their provenance in being used by Australian National Antarctic Research Expeditions (ANARE), student learning is greatly enhanced.



The new Ice Box contents. Photo courtesy TMAG.

The objects were carefully chosen to reflect the three broad themes of the natural Antarctic environment, history of exploration (& connections with Australia) and people in Antarctica today. Aimed at the middle school level, the Ice Box objects are accompanied by a comprehensive teacher's guide that details the provenance and background information on each object, enabling teachers to make the most of the loan. Additionally a series of large laminated photographs and a few key reference books, including classics such as Mawson's *Home of the Blizzard* and Apsley Cherry-Garrard's *The Worst Journey in the World* are included in the box.

Whilst the new Ice Box is just that, a new educational loan resource administered by the Tasmanian Museum and Art Gallery, its legacy is almost a decade old. Many Ice Breaker readers will be aware of Gordon Bain's passion and dedication in designing and delivering the first incarnation of the resource to many schools in Tasmania. When Gordon retired, the resources were donated to the Tasmanian Museum and Art Gallery (TMAG). Whilst Gordon had collated over seven boxes of mostly books, DVD's, magazines and some recent Antarctic clothing, a new strategy was developed by TMAG that focused on the provision of real objects relating to the Antarctic rather than print/video material that is nowadays often readily available through the web.

TMAG, through the generous contribution of funds from the Tasmanian Polar Network and Antarctic Tasmania and in kind resources from the Australian Antarctic Division (AAD), has been able to create two object rich boxes. The Australian Antarctic Division supplied many of the objects, especially the modern clothing and field equipment, with other material from TMAG's collection, private donors and specific purchases. Interestingly the boxes themselves have a history of being used by the AAD in Antarctica, transporting field equipment on a series of marine voyages and continental expeditions over the late 1990-2000's.

The recognition of the value of school sector engagement in Antarctic studies by groups such the TPN and the AAD is a tribute to those organizations foresight. Commitment to the next generation of potential Antarctic scientists, policy and decision makers will ensure a strong ongoing Australian connection to the Antarctica region.

The Ice Box can be borrowed by contacting
The Tasmanian Museum and Art Gallery, Centre for Learning and Discovery
Email: tmag.bookings@tmag.tas.gov.au
Phone: 6211 4189

Andy Baird

Manager: Centre for Learning and Discovery
Tasmanian Museum and Art Gallery



Gordon Bain's Ice Box kits. Photo courtesy Gordon Bain.



Polar News

Ice radar

A helicopter radar system that measures the thickness of snow on polar sea ice has recently been developed by Tasmanian electrical engineer, Natalia Galin. Ms Galin won a Fullbright Scholarship to USA in 2008 and modified NASA radar installed in fixed-wings aircraft, to suit helicopters. Measurement of snow thickness is vital to understanding how the climate is changing. Ms Galin's system helps calibrate remote satellite sensing and estimates are checked with those from sleds on ice floes.

Southern Plastic

British Antarctic Survey and Greenpeace researchers have observed plastic items are now littering the waters close to the Antarctic continent, an environment previously untouched by such pollution.

Polar Science Week

Activities for students during Science Week last month included Hunter Island Press and CSIRO scientists developing a series of fine art prints; Creatures from the Antarctic Sea Floor photos at AAD, Antarctic images by Jack Robert-Tissot and a talk by explorer Tim Jarvis. For students interested in researching a range of Antarctic and Southern Ocean studies, see www.youngtassiescientists.com

Polar Legs

Australian ultramarathon runner, Pat Farmer, plans to run from Antarctica to the North Pole to raise \$155 million for water projects in the world's driest regions. Starting in Antarctica in November 2010, Pat intends to run 30 km a day over ice and 80km a day on normal terrain. He expects to finish the 21,000 km trek in early 2012.

Maritime monitor

Six hundred kilometres southwest of Hobart, is a weather monitoring buoy called the Southern Ocean Flux Station (SOFS). Anchored by 3.5 tonnes of old railway wheels attached to over 6 kms of wire and synthetic rope, the buoy measures various meteorological elements in the air and underwater. It can be tracked by GPS and is regularly serviced by the Southern Surveyor. The buoy is the first of its type in the Southern Ocean, was built at Woods Hole Oceanic Institution in USA and is operated by the Bureau of Meteorology, CSIRO and UTAS. Data can be accessed at <http://emii3.its.utas.au/sofs/>

Hawke on Ice

A new, three-year fellowship, based at AAD, is being offered to scientists interested in environmental projects in Antarctica. Worth \$250,000, the fellowship was named after former Prime Minister Bob Hawke, whose government rejected the proposed Mineral Convention in Antarctica.

Polar first

Linda Beilharz has become the first Australian woman to trek to both the North and South Poles. She reached the South Pole in 2004 and the North Pole with her husband and trek partner, Rob Rigato, in April this year.

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An Igloo in New York

How did a Tasmanian Apple hut end up in New York?

I was emailed in February this year by a researcher from the American Museum of Natural History (AMNH) in New York City, asking if they could purchase an Igloo Satellite Cabin for the Antarctic exhibition they were assembling. Called 'Race to the End of the Earth', the majority of the exhibition concerned Scott's and Amundsen's expeditions to the South Pole in the early 20th century, while the last section focused on present day living in Antarctica, and they wanted an open Igloo as an example of temporary accommodation on ice. I contacted Penguin Composites, who manufacture the Igloos under licence, and a bright red Igloo was made and sent to NY in May.

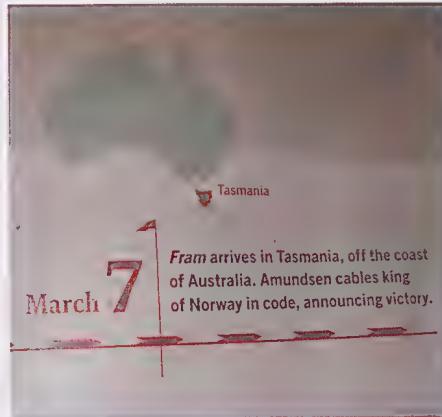
Attending the official opening of such an important exhibition was irresistible, so On Sunday May 23, I flew to New



York and stayed until the following Sunday. The exhibition will be in NY for 9 months, then travel to museums in Canada and France. [I am hoping one of the Australian museums will host it sometime as well.]

The Antarctic exhibition is in a separate room on the fourth floor of the museum, taking up over 6000 square feet (2,500 sq metres).

This room exits to a souvenir shop selling all sorts of Antarctic related items, including books, T-shirts, jewellery, stuffed penguins, caps and other items.



The Scott and Amundsen section starts with a short video introducing the two men, and then follows their expeditions on a parallel, daily timeline along the walls. A section of Scott's hut and Amundsen's tent and an under ice workshop were all recreated. Sleds and other artifacts were included, plus interactive photo albums and books, dioramas, other videos and small models of sleds, dogs and expeditioners.

The Igloo was situated at the end of the room and consisted of 6 wall panels, including a door, plus a bunk, sink, desk and sledge box. The museum added the clothing and equipment. In addition to the Igloo, Antarctic Tasmanian provided me with several booklets and flyers about Tasmania's role in Antarctic research and resupply, and the museum was very grateful to receive these. Some will travel with the exhibition and the rest will be made available through their library, or to those organising school group visits to the exhibition.



PREFAB IGLOO

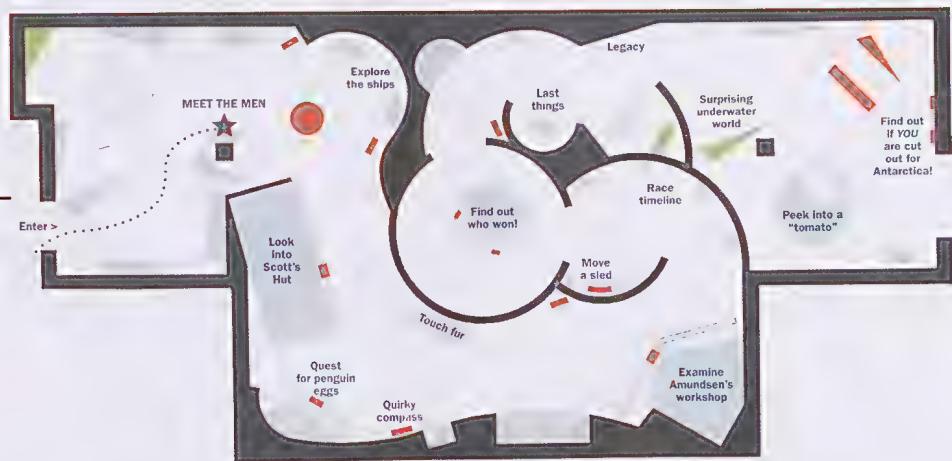
These portable huts are nicknamed 'Apple' or 'Igloos' by the people who use them. The igloos can be transported in a box and set up in 10 to 15 minutes at speeds of up to 10 miles (16 km/hour) an hour. When in place, the structures are propped on two-by fours and anchored to the ground with cables so they won't be flopped by the wind. Igloos have been used as sleeping quarters, laboratories and emergency weather shelters.

My visit to New York was valuable in many ways:

- Attending the official opening and reception of the Antarctic expedition on May 25, seeing an Igloo, a Tasmanian product, in an American Antarctic exhibition and having it publicized in the New York Times.
- Meeting with the museum's exhibition staff, who were delighted to have an igloo to display, and some of the education staff, who emphasised how Antarctic education is an essential part of the



curriculum in New York. I received copies of the teachers' booklet and student guide to the exhibition, plus several other guides to other museum areas. These booklets are made downloadable to teachers so they and the students arrive well prepared. I was very impressed with the extent to which the museum's education department goes to involve teachers and students in their exhibits.



- Meeting Antarctic researchers on Saturday, May 29, when the Antarctic display was open to the public and the museum also held a polar fair. There I met several expeditioners who were involved in the Gamburstev expedition 2 years ago, for which Eric Phillips of Icetrek established a base camp. I also attended a lecture by Ann Bancroft, the first woman to trek solo to the North Pole and leader of the first women's team to the South Pole, and one by Jon Bowermaster, who also showed his latest DVD called *Terra Antarctica*, about kayaking around the Antarctic



Peninsula to observe the effects of global warming.

- Attending the polar fair also gave me plenty of ideas for our Midwinter activities, including some for next year's Mawson centenary events, plus some souvenirs of the Antarctic exhibition.

- Connecting with women involved in exploration and research and finding out their plans for Antarctic expeditions, all of which is made available to teachers and students. I also spent time with Elke Bergholz, who teaches biology at the UN school in NY. She is very involved in the teaching side of Antarctic education and a women expeditioners' group called Wings World Quest. She knows Betty Trummel, who with Gordon Bain, established the Ice Box, which is now with TMAG.

- Visiting Austrade in New York and providing information about the AMNH's Antarctic exhibition. No information had been sent from the Tasmanian offices of Austrade, but emails were sent to Austrade staff after my visit so that any visiting Australians would know to visit the exhibition if interested.
- Meeting Graham Dickson, CEO of Arctic Kingdom, a company supplying equipment for a wide range of cold climate research and tourism. We had been emailing each other regarding purchasing Igloos for sale and hire. Being able to show him the igloo rather than just sending photos was great.



Unfortunately, the cost of transport to far northern Canada is very high, so if anyone is interested in sponsoring an Igloo or its transport, let me know!

I thank the TPN and Antarctic Tasmania for their support for this trip. My New York report will be available to TPN members through Antarctic Tasmania and I hope some of my suggestions for midwinter activities and Antarctic education will be considered by the committee.

Anthea Wallhead

Icewall One



Photos (L-R)

- Beginning of the exhibition
- Section mentioning Tasmania
- Exhibit sign for the Igloo
- Igloo Satellite Cabin
- Layout of the exhibition
- Sledge box with TPN stickers
- Exhibition souvenirs

Macquarie Island 1810-1822: Some Hobart connections

After Frederick Hasselburg first visited the island the new industry virtually wiped out the fur seal taking over 150 000 pelts, and by about 1820 exploitation had moved to elephant seals, which were soon overexploited and the industry ceased its first phase in the late 1820s. Like many episodes of human exploitation, no strategic studies of the resource were undertaken and even the specific identity of the fur seal is unknown. This is a classic example of exploiting the resource to commercial extinction with no thought for the survival of the species, or industry sustainability.

A week after the discovery, Hasselburg left a sealing gang of eight men with provisions for up to nine months. Perseverance departed for Sydney and Hasselburg returned on 2 October 1810 bringing extra men to form two gangs each of 12. He then departed for Campbell Island where he drowned in a small boat accident on 4 November 1810. On this voyage, Perseverance carried Elizabeth Farr (or Parr) who may have been the first woman to see Macquarie Island but she died in the same accident.

On 18 September, Aurora (Captain Chace) after Campbell Island, sailed for Macquarie Island with imperfect location information. Chace found it and stayed with a sealing gang early in December. Aurora later returned, recovered the sealing gang, 60 tonnes of elephant seal oil and 3000 fur seal skins, before returning to Sydney on 19 May 1811.

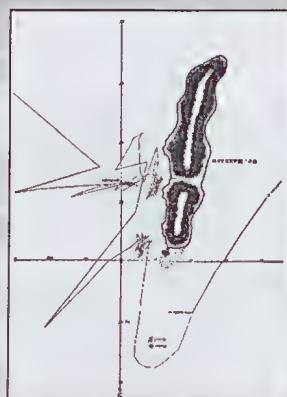
Elizabeth and Mary came on 31 December 1810 with a new gang to operate independently. She returned with 17 037 skins from the earlier gangs, and one of their number. She seems to have noted the presence of two other vessels, Unity and Sydney Cove and recorded that another ship - Star - had departed for England shortly before.



The Island was already well-known as a good source of seals. The last three ships were working, not for Robert Campbell, but for Kable and Underwood, and the location of Macquarie Island had been obtained by underhand means. Elizabeth & Mary was a long-term visitor to the island, from 1810-1829 but especially 1815-1823 when she made several trips each year.

On its second voyage, departing Sydney on 1 June 1811, Concord, under Captain William Rook, carried Catherine Rook as a passenger.

Whether or not she was Rook's wife is uncertain but probably she was the second woman to see the Island.



A regular visitor to the island in its early days was Captain Richard Siddins (often wrongly Siddons) from Port Jackson. His first visit was on 10 June 1812 when he arrived in Campbell Macquarie which was wrecked without loss of life while under contract to Joseph Underwood, one of two companies, with Robert Campbell, to have sealing gangs on the island. The chief mate was James Kelly, a well-known Hobart identity. The ship had taken on salt at Kangaroo Island, and much of the cargo successfully taken ashore was destroyed by heavy seas. Some of Siddins' crew was rescued by Perseverance (Hasselburg's ship) and arrived back in Sydney on 2 November. Campbell then sent Siddins back to collect the rest of the crew, but meanwhile nine had died.

Above: Garden Cove, Macquarie Island 1820 (after Cumpston, 1968). Original by Paul Mikhailov, artist on Vostok from Bellingshausen's visit.

Left: Bellingshausen's map of Macquarie Island (after Cumpston, 1968).

Right: Captain Langdon's map of the island (1822) (after Cumpston, 1968).

Images courtesy Pat Quilty.

The rescue voyage sailed on Elizabeth and Mary five days after arrival in Sydney, to return on 28 January 1813. Siddins did not revisit Macquarie Island for five years when he departed Sydney on a newer ship also named Campbell Macquarie; this returned to Hobart on 12 December. His last trip to Macquarie Island was in Lynx (in which he later spent 19 months en route to, and at, the Antarctic Peninsula) 19 February-18 July 1823.

Betsey arrived on 13 February 1815 from Sydney for J. Underwood and returned successfully, having landed a sealing gang. In August 1916, she departed Sydney and spent three weeks near the Island but weather prevented landing. Captain Philip Goodenough decided to return to Sydney but further heavy weather caused him to sail for New Zealand. Food and water were progressively reduced, and scurvy and other medical problems led to steady loss of crew and ultimately the ability to sail effectively. Storms slowly reduced her seaworthiness, and loss of rudders stimulated a decision to abandon ship after water-proofing a whale boat and its jolly boat.

The remainder of the crew made it to New Zealand where Maoris looked after them until Active returned them to Sydney.

Cumberland had made a successful trip to Macquarie Island during 1814 but a second voyage departing Sydney on 24 June 1815 was her last; she was not seen again and it is possible that the gang left on the Island was that recovered in 1816 by Elizabeth and Mary.

Emerald was another ship that had made one successful visit to the Island, in mid 1821. She departed Hobart on 8 November the same year and ultimately left an enigmatic legacy. She was at the Island on 20 November to take on oil en route to Rio de Janeiro. At the Island Captain Elliott found the gang almost in mutiny and wanting to leave. He left some provisions and departed with two or three of the gang. At 57°30' S; 161°12' E, the owner, Captain C.W. Nockells, reported the appearance of land. This has been plotted on charts as Emerald Isle but, despite search, it has not been sighted again and joins a considerable list of non-existent Antarctic or sub-Antarctic islands. Wilkes in 1840 searched for Emerald Isle but failed and Captain Soule of Friendship in 1879 reported its non-existence to the Admiralty which removed it from charts.

Captain William Langdon of *Lusitania*, is another who left a major influence on Macquarie Island from a single visit. He departed Hobart on 14 February, 1822 for the Island and thence London, not an unusual route at the time. He apparently breached Colonial Port Regulations '...by conveying clandestinely on board and carrying away from this settlement [Hobart] without authority or clearance a Mr Thomas Kent, who was at the time greatly indebted to various persons in Van Diemen's Land...'.

Others stated that Kent had been seen on the Island but, being unwelcome, had continued on the trip to England. During the visit, Langdon surveyed the eastern aspect of the Island (see map) and gave formal names to many features. Many names remain and a few have been modified or abandoned. This may have been the first formal naming of a large number of Macquarie Island features during one voyage and with the correct training and affiliations to have them recorded formally.

One of the most famous visitors to Macquarie Island was the great Russian navigator Thaddeus von Bellingshausen during his major exploration/scientific voyage. He arrived on 17 November 1820 and spent two days with Vostok and Mirny. He made the very early observation that Macquarie Island lies on a continuation of the submarine ridge (now Macquarie Ridge) that continues north through New Zealand and north. This expedition left the most comprehensive report on the sealers' life, collected various flora and fauna, and made considerable comment on wildlife, including some on the now-extinct parakeet. The Russians were surprised to see how green the island was and contrasted this with the snow and ice cover they had seen on South Georgia. The ships both felt an earthquake, initially taken to be due to running aground but the water was too deep. They took on water, gave the sealers rum and some fresh food, and noted that the sealers had filled all their barrels and thus were unable to achieve the full potential catch.

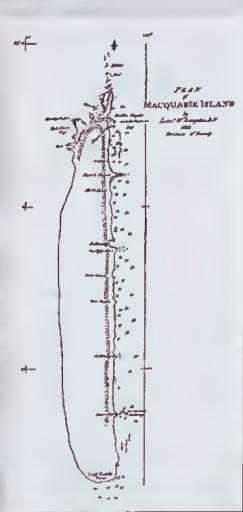
Pat Quilty AM

Honorary Research Professor
School of Earth Sciences
University of Tasmania

References

Cumpston, J.S. 1968. *Macquarie Island. ANARE Scientific Report, No. 93. Antarctic Division, Department of External Affairs, Canberra*, 380 pp.

Debenham, F. (editor) 1945. *The voyage of Captain Bellingshausen to the Antarctic seas 1819-1821. Translated from the Russian. Hakluyt Society*, vols 1 and 2.





Rob Valentine

Our Antarctic Gateway future looks very exciting.

Given the increasing importance of Antarctic research in climate change debates and resource management it is clear that the Hobart City Council has an opportunity to provide significant impetus and further civic assistance to the Antarctic community through our involvement in a more formal way in events associated with the Antarctic Program.

Our Council has recently resolved to investigate how we can become involved in a range of potential initiatives to ensure the profile of the Antarctic Program is increased, leading to significant gains for Greater Hobart's Antarctic Gateway status.



Above: China's 20th anniversary of the 1990 International Trans-Antarctic Expedition by dog sledge.

Below: USA's Operation Deep Freeze.

Stamp covers courtesy Klaus Arne Pedersen.



The following are events or initiatives the Council is considering becoming involved with:

- Facilitating Mawson Centenary Celebration (2011) events
- Assisting in preparations for the 2012 Antarctic Treaty Meeting
- Working with stakeholders in the redevelopment of Macquarie Wharf 2
- Holding a 'Hobart Talks' lecture on an Antarctic related theme
- Hosting an 'Opening of Season' reception
- Hosting a 'Southern Rim Gateway Cities Statement of Intent' signing
- Contributing funding towards TMAG's Islands to Ice exhibition.

Our Antarctic Gateway future looks very exciting. We need to work together to ensure the full extent of Antarctic Gateway activity is showcased to the general public and to see related business are given the best opportunity to grow and expand into the future.

The Council looks forward to that end.

Alderman Rob Valentine

Lord Mayor

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Deep thinking ahead

The world's deep ocean researchers – scientists who's field of interest extends into the uncertain world below about 2,000 metres – met in Hobart in June to discuss deep ocean changes, their causes, and their implications.

Changes in deep ocean conditions affect global climate, with deep warming contributing to sea level rise and the deep ocean absorbing atmospheric CO₂.

To assess change, researchers create budgets to determine the amount of energy (in the form of heat), water, and gases (including CO₂), entering and exiting the ocean. They rely of valuable but infrequent deep ocean measurements from ships, incorporated into sophisticated computer models, to project the extent of future warming.

"It may seem far removed from rising temperatures or shifts in rainfall cycles but the deep ocean is a significant component of the Earth's climate system," says coordinator of the Deep Ocean workshop, CSIRO Wealth from Ocean's Dr. Bernadette Sloyan.

"The deep oceans play a crucial role in setting the rate and nature of global climate change and variability through their moderation of the heat, freshwater, and carbon cycles.

"This workshop will help to guide the next 3-4 years of internationally-focused deep ocean research, generating a greater understanding of ocean dynamics for inclusion in the next report of the

Intergovernmental Panel on Climate Change," said Dr Sloyan, who is a specialist in profiling deep ocean water masses.

Despite numerous technological advances over the last several decades, ship-based surveys remain the only method for obtaining high-quality observations of a suite of physical, chemical, and biological parameters over the full water column, especially for the deep ocean below 2 km (52% of global ocean volume)..

Predicting climate change and sea level rise depends critically on knowledge of the changing balances of greenhouse gases, heat and water, and the processes governing them.

Dr Gregory Johnson, an oceanographer with the U.S. National Oceanic and Atmospheric Administration says "Deep ocean changes make significant contributions to sea level rise patterns and the Earth's absorption of green-house gas warming, so understanding and quantifying these changes is important for climate and sea level rise projections".

"The ability of the deep ocean to store carbon for hundreds of years before it is returned to the atmosphere is an integral component of global ocean research," Dr Nicolas Metzl, from LOCEAN-IPSL, France, said.

More than 30 Australian and international oceanographers were in Hobart for the workshop, from June 21-23, including scientists studying the implications for ocean life as oceans absorb increasing levels of carbon dioxide.

Craig Macaulay

CSIRO

- The ocean comprises 70 per cent of the world's surface area.

- Its average depth, calculated by the Woods Hole Oceanographic Institute, is about 3,600 metres.

- The ocean is generally layered and includes several water masses, from the surface layer that interacts directly with the atmosphere, to the thermocline where the ocean temperature drops rapidly, to intermediate water masses that are storing significant amounts of carbon, to Antarctic Bottom Water, formed at the edge of the Antarctic continent.

- The flywheel of global climate is found in the series of deep and mid-water ocean currents known as the ocean conveyor belt. The largest of these currents is the Antarctic Circumpolar Current at around 150 times the volume of the Amazon River.

- The composition of gases in the ocean provides a time frame for scientists to identify when they entered the ocean, and the degree of interchange between water masses.

- Scientists have observed measurable warming of deep ocean temperatures over the last few decades around much of the globe, even into the far reaches of the North Pacific Ocean.

- Dr Sloyan and many of the international participants have participated in and led research voyages to study the roles of the deep ocean in climate around the globe. Many scientists attending the workshop also run and analyse numerical models for similar purposes.

Antarctic Visions

Cultural perspectives on the southern continent

On 21 June, one hundred years and 6 days after the Terra Nova sailed out of Cardiff, Wales on Captain Robert Scott's Last Expedition, **Max Jones** gave the keynote address opening this conference in Hobart. Max, Senior Lecturer in Modern History at the University of Manchester and author of two works dealing with Scott, spoke passionately at this and in a later public conversation with Carl Murray about the public perceptions of Scott following Roland Huntford's 1979 *The Last Place on Earth* and the Trevor Griffith's script for the 1985 docu-drama of the same name and starring Martin Shaw. The controversy on the Huntford/Griffiths presentation of perceived inadequacies of the English governing elite, the ideology that packaged incompetent failure as heroic sacrifices and aspects of Scott's personal life engaged the 66 Conference delegates.

“Antarctic Visions” brought together Antarctic scholars, researchers and enthusiasts from an impressive range of disciplines and interests from many parts of Australia and the world including many published authors and academics, with wide and varied Antarctic experiences. Coverage ranged the visual arts, history, geography, tourism, music, psychology, heritage, conservation, archaeology and literary, cultural and media studies.

Organised by the University of Tasmania, the Conference ran for three days partly at the Tasmanian School of Art and the Royal Society Rooms at the Tasmanian Museum and Art Gallery.

Without doubt **Dr Jon Stephenson** was the veteran, a legend and stand-out guest.

Jon a Geologist and now resident in North Queensland was with the 12-man Vivian Fuchs led group on the first crossing of the Antarctic Continent in January 1958 travelling from Shackleton Base in the Weddell Sea as part of the Commonwealth Trans-Antarctic Expedition. Jon spoke on leadership in Antarctica citing James Cook, Otto Nordenskjold, Finn Ronne and his fellow expeditioners Fuchs and Edmund Hillary.

It was hard deciding which sessions of the Conference to attend and which speakers and sessions to mention. My apologies for not covering the topics of speakers that I simply could not attend.

The Conference was not remiss in dealing with Douglas Mawson matters, remembering that in December 2011 we will be celebrating the centenary of the S.Y. Aurora Australis' departure from Hobart for the Australasian Antarctic Expedition.

Anna Lucas spoke on the trials and tribulations of Mawson's use of a fixed wing aircraft – the REP Monoplane, with a focus on the events in Adelaide prior to the expedition when the aircraft crashed and destroyed its wings. **Chris Henderson** of the Antarctic Huts Foundation shifted the focus to Cape Denison a hundred years on, to the search for and recovery of remnants of that aircraft, now described as an 'air tractor.



Christy Collis, Queensland University of Technology gave another of the Keynote addresses, dealing with the notions of claim, empire and territoriality citing Australia's sovereign claim on the Antarctic continent and the continental shelf.

Lynette Willshire, School of History and Classics at UTAS, presented a thought-provoking discussion on Sidney Jeffryes who spent the second winter of Mawson's AAE at Cape Denison.

Above: (L-R) Frances Underwood, Dr Jon Stephenson and Governor Peter Underwood. Photo Courtesy Government House.

Right: Bernacchi promotional postcard. Photo courtesy Gordon Bain.

Top-Right: South Pole Inn, from Rob Stephenson's collection. Photo courtesy Gordon Bain.

Text courtesy Gordon Bain and Lorne Kriwoken



Jeffries' state of mind during the expedition and subsequently in Australia has been the subject of some controversy including what Mawson did or didn't know and what he said or didn't say.

On a lighter but still serious note, **Heather Rossiter** spoke of the diaries, letters and journals of the often forgotten men of the AAE: the expeditioners making up the Frank Wild led 'Western Party' on the Shackleton Ice Shelf and their exploration of Queen Mary Land. Heather drew particularly on the diary of the Tasmanian Biologist Charles Harrison, whose life was tragically cut short in December 1914 when the Commonwealth Fisheries Investigation Ship Endeavour disappeared without trace when leaving Macquarie Island.

The Aurora Australis, written, published and printed during Shackleton's Nimrod Expedition in 1907 is arguably the best known of the on-ice newspapers. Much less known, but now available in print is Adelie Blizzard, written at Cape Denison during the two winters of Mawson's AAE. Discussion on the development and publication of a facsimile version of the paper was led by **Mark Pharoah**, South Australian Museum. Adelie Blizzard which Mark co-introduces with Elle Leane of UTAS is available through The Friends of the State Library of South Australia (see P22).

Other Australian activities of the heroic era were highlighted in **Andrew Atkin's** presentation on the life and works of Louis Bernacchi, not only of his scientific and other work on the Southern Cross and Discovery expeditions, but on his literary legacy, his continuing passion for polar science and his foray into politics.

Another element of Bernacchi's Southern Cross expedition was covered by Psychologist **Gary Steele** of Christchurch's Lincoln University in his paper which, through a thematic analysis of Bernacchi's diaries, tracked changes in his views, moods and life throughout that first Antarctic winter – including the shift from a simple and positive impression of place to a more complex and sombre image incorporating elements of uncertainty, lifelessness and beauty. Much of this study correlates with experiences of some modern over-wintering expeditioners, but in contrast with others with differences in technology.

Julian Bickersteth of Sydney-based International Conservation Services explored the 16,000 or so artefacts of the Heroic Age spread across the Ross Island Huts, the Southern Cross's huts at Cape Adare and Mawson's Cape Denison, discussing their ability to interpret the period.



The Heroic Age theme took a different turn in the presentation by **Rob Stephenson** of New Hampshire. Rob has focussed much of his attention in recent years to creating a database and associated website of places of Antarctic interest but elsewhere than the Antarctic.

His quaintly named Low Latitudes Antarctic Gazeteer covers a wide range of statues, monuments, historic homes, churches, headstones, pubs, museums, streets, plaques, ships, trains and aeroplanes connected with people of the heroic age and more recently.

Sydney Archaeologist **Sherrie-Lee Evans** argued the lack of definitions on 'environment' and 'heritage significance' in the Madrid Protocol lead to problems with environmental impact assessment on historic sites or artefacts and a conflict of values between 'heritage' and pristine wilderness especially in the context of Annex 3 of the Protocol on waste removal.

The Scott collection of rocks and minerals housed in the Natural History Museum, London form the centrepiece of photographs in an installation Fossil cairn – the Weight of Destiny. **Megan Jenkinson's** paper describes this in the form of the snow cairn built over the bodies of Scott and his two companions – and as a memorial to the lives lost. Megan intends this pile of rocks, carried back by the doomed expeditioners, to act as a visual catalyst for contemplating human endeavour, dilemma, decision making processes and their effect on destiny.

New Zealand Visual Artist **Kirsten Haydon** continued the art theme in her paper outlining the way her on-ice experience in the Dry Valleys lead to developing new concepts, material applications and processes to making jewellery and other objects.

Renowned harpist and ANU Lecturer **Alice Giles** presented a paper on music and sounds from the Antarctic – not only those built around sound captures from the continent but music inspired by the nature of the continent.

continued >>

Polar Publications

Antarctic Visions (cont.)

She described works by Australian musicians and other significant ones from other nations and said that there would be much more along these lines at a conference next year.

In a shift to the literary world there was a presentation by **Caroline Campbell** from New Zealand's Massey University. Caroline's illustrated talk focused on current research into the representation of gender, science and Antarctica in junior fiction and the place of this form of literature in dealing with politically sensitive and cultural attitude. Her talk centred on Jules Verne's *An Antarctic Mystery*, illustrated by George Roux. Verne's book is in the nature of a sequel to Edgar Allan Poe's 1838 *Narrative of Arthur Gordon Pym of Nantucket*.

Laura Kay, Astrophysicist and Associate Professor of Physics and Astronomy at Barnard College, Columbia University stepped right out of her profession in presenting an entertaining discourse on bad, and worse, Antarctic fiction. There is a surprising amount and range of literature from the hollow earth theorists of the 19th century through the subsequent period of ocean exploration, the heroic era, the mechanical age to our modern enlightened times. Some works, such as Lovecraft's *At the Mountains of Madness*, have become classics, but most others are average to poor and worse. Much of the bad fiction contain monsters, vampires, lost civilisations, aliens (internal and extra terrestrial), Nazis, resource wars, 'Icy' women scientists, and contemporary themes of global climate, ozone and oxygen depletion and polar icecap melting in a broad category of eco-porn (how planet Earth gets screwed). Gordon Bain had a display of many fiction works from his private collection –books, graphic novels (comics) and VHS/DVDs.

BOOK

Race to the End: Amundsen, Scott and the Attainment of the South Pole

By Ross MacPhee
Published by Sterling
Price: \$39.99

Describes the details of Scott's and Amundsen's expeditions, including reproductions of Scott's memorial edition of Britain's *The Sphere* newspaper in 1913. The author is a curator at the American Museum of Natural History in New York, which is currently holding an exhibition about these expeditions



BOOK

The Adelie Blizzard: Mawson's forgotten newspapers, 1913

Published by the Friends of the State Library of South Australia
Price: \$295 Deluxe edition, \$150 Standard edition

This is a facsimile edition of the periodic newsletter produced by members of the Australasian Antarctic Expedition during the winter of 1913 at Cape Denison, Commonwealth Bay.

Summing up the Conference, Co-Convenor **Elle Leane** said - "For me, the key point of this conference was that it signalled the existence of a field: an interdisciplinary field focused around the study of Antarctic matters from the perspective of the arts, humanities and social sciences. The 2008 sister conference "Imagining Antarctica" in Christchurch showed the potential for the field, but a single event can remain just that. "Antarctic Visions" demonstrated a continuing interest in the area - a momentum which is now being carried forward by the ANU with a 2011 conference focussing on music and sound with the aim of promoting these topics as an important aspect of our future in the Antarctic. Many of the people who attended "Antarctic Visions" were also at "Imagining Antarctica," and I anticipate many of them will be at the Canberra conference as well. This means that there is a sense of a community of researchers and artistic practitioners aware of each other's work and approaches. Already unexpected and exciting collaborations have grown from these conferences, and I hope there will be many more to come."



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Ice Birds



Ann Bancroft

Born: 1955

Occupation: Explorer, educator (USA)

Notable Expeditions: 1986 first woman to reach the North Pole across ice; 1992 led first team of American women across Greenland; 1992-93 led first women's team to the South Pole, to become the first woman to cross the ice at both poles; 2000-01 first woman, with Liv Arnesen, to cross Antarctica

Award: Wings 2008 Courage Award – www.wingsworldquest.org

Websites: annbancroftfoundation.org; yourexpedition.com; bancroftarnesen.com

Ann Bancroft and Liv Arnesen will celebrate the 100th Anniversary of Roald Amundsen being the first man to reach the South Pole, by arranging an international of women to follow his route. The team of 6 women will start the expedition at the Bay of Whales in October 2011 and hope to reach the Pole in January 2012. The educational theme of the expedition will be Water – to draw attention to the current global water crisis. More details on YourExpedition.com



Liv Arnesen

Born: 1953

Occupation: Lecturer, educator and explorer (Norway)

Notable Expeditions: Crossing the Greenland icecap; First woman Solo and Unsupported to the South Pole; Kayaking in Antarctica; Traversing the 'Shackleton Route' in South Georgia; two attempts to cross the Arctic Ocean

Award: Wings 2008 Courage Award – www.wingsworldquest.org

Website: www.LivArnesen.com



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7-11	September 2010	World Seabird Conference. Victoria, Canada. Contact www.worldseabirdconference.com
15	September 2010	Going South: Phillip Law Commemorative Antarctic Science Symposium. Melbourne Exhibition and Convention Centre, Melbourne, Victoria. Contact www.atse.org.au
16	September 2010	International Day for the Preservation of the Ozone Layer.
20-24	September 2010	11th International Circumpolar Remote Sensing Symposium. Cambridge, UK.
4-8	October 2010	Consensus of Marine Life 2010: A Decade of Discovery. London, UK.
22-24	October 2010	Inaugural Bruny Island Bird Festival. Includes bird watching tours to penguin rookeries, boat trips to Pedra Branca. Contact bien.network@gmail.com
25	October 2010-	CCAMLR meetings. Hobart, Tasmania
5	November 2010	
25	November 2010	Tasmanian Polar Network meeting. Hobart, Tasmania. (to be confirmed)
27-29	January 2011	History Workshop: Exploring Ice and snow in the Cold War. Munich, Germany
27-29	March 2011	Arctic Science Summit Week. Seoul, Korea

For further information, see www.environment.gov.au/about/media/events and www.scar.org/events

Live Theatre: Do Not Go Gentle.

Do Not Go Gentle written by Patricia Cornelius, directed by Julian Meyrick and performed by seven extraordinarily talented actors, holds an audience spellbound as they watch the magical telling of two stories, poles apart in subject matter but inseparable in their emotional struggle of the reality of facing old age and death.

The characters faithfully perform the gruelling trek of Scott (Rhys McConnochie), Bowers (Pamela Rabe), Taff Evans (Terry Norris), Titus Oates (Malcolm Roberts) and his demons Alex/Peter (Paul English) and Wilson (Anne Phelan), to the South Pole and the devastating end to their expedition. Scott, recounting the heroic qualities of each expeditioner, exposes the total mismatch of the characters portraying these Antarctic heroes. Along this famous journey a glimpse of each of the characters true self is exposed to us: their frailties, guilt, anger, fears, doubts and delightful happiness from the loss of inhibitions.

The rage of one nursing home resident, Maria (Jan Friedl), breaks

through to the parallel, shared delusion of the other characters, making an interesting insight to the acceptance by all to the loss of reality. The overwhelming sadness that ensues from the knowledge that they have lost control over their lives, is shared by the audience with a jolt and yes, we should all 'not go gentle into the good night' but 'rage, rage against the dying of the light'.

[Title and quotes from Dylan Thomas' poem, Do Not Go Gentle into That Good Night.]

This play was seen at 45 Downstairs, 45 Flinders Lane, Melbourne during August 2010. Plans are underway to bring the play to Hobart.

Review by Sue Halliwell



Cast of *Do Not Go Gentle*: (L-R) Paul English, Jan Friedl, Terry Norris, Anne Phelan, Rhys McConnochie, Pamela Rabe and Malcolm Robertson. Photo courtesy Jeff Busby.

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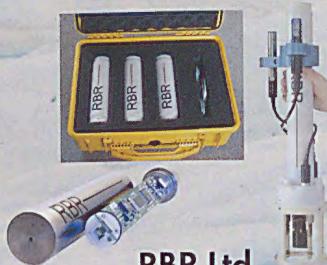
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Shipping

15	October	2010	Aurora Australis	Vtrials	Departs for Marine Science trials.
16-18	October	2010	Aurora Australis	Vtrials	Marine Science.
19-21	October	2010	Aurora Australis	V1	Arrives Hobart and departs for Marine Science.
2-7	November	2010	Aurora Australis	V1	Marine Science.
11-20	November	2010	Aurora Australis	V1	Davis Station.
1	December	2010	L'Astrolabe	AST2	Departs Hobart for Commonwealth Bay
2-4	December	2010	Aurora Australis	V1	Arrives Hobart and departs for Casey Station.
8	December	2010	Orion	T3	Departs Hobart for Macquarie Island
12	December	2010	Orion	T3	Macquarie Island
12-13	December	2010	L'Astrolabe	AST2	Commonwealth Bay
13-21	December	2010	Aurora Australis	V2	Casey Station.
21-28	December	2010	Orion	T3	Arrives Dunedin, NZ, departs for Macquarie Island
23	December	2010	L'Astrolabe	AST2	Arrives Hobart
26	December	2010	Aurora Australis	V2	Marine Science
21	January	2011		V2	
2-3	January	2011	Orion	T6	Macquarie Island
12	January	2011	L'Astrolabe	AST3	Departs Hobart for Commonwealth Bay
15	January	2011	Orion	T6	Arrives Dunedin, NZ, departs for Macquarie Island
22	January	2011	L'Astrolabe	AST3	Macquarie Island
22-24	January	2011	Aurora Australis	V2	Arrives Hobart, departs for Mawson Station

Flights

23	September	2010	Airbus A319	FAUS01A,B	Christchurch to McMurdo and return (charter)
25	September	2010	Airbus A319	FAUS02A,B	Christchurch to McMurdo and return
20	October	2010	C-212	FC01	Hobart to Casey Station
26	October	2010	Airbus A319	FAMc018A,B	Hobart to McMurdo and return
28	October	2010	Herc. C130	FHMc02A,B	McMurdo to Casey and return
2	November	2010	Airbus A319	FAMc03A,B	Hobart to McMurdo and return to Melbourne
4	November	2010	Herc. C130	FHMc04A,B	McMurdo to Casey and return
20	November	2010	C-212	FC03	Casey to Davis Station
25	November	2010	Basler T. DC3	FB03AWI	Novolazarevskaya to Davis Station
25	November	2010	C-212	FC04,5	Davis to Mawson and return
26	November	2010	Basler T. DC3	FB03AWI	Davis to Casey Station
5	December	2010	Basler T. DC3	FB06AWI	Casey to Davis Station
6	December	2010	Basler T. DC3	FB07AWI	Davis to Novolazarevskaya
9	December	2010	Basler T. DC3	FB011CP	McMurdo to Casey Station
19	December	2010	Airbus A319	FA00B	Hobart to Wilkins Aerodrome and return



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